

**AMENDMENTS TO THE CLAIMS:**

*Please amend claims as follows:*

1-123 (Cancelled).

124. **(Currently amended)** A process for preparing an orthopaedic implant prosthesis bearing having improved mechanical properties and increased wear resistance comprising the steps of:

**a)** providing an ultrahigh molecular weight polyethylene (UHMWPE) preform from which the bearings are to be fabricated;

**b)** heating the preform to a temperature above the melting point of the UHMWPE to about 230°C; and ~~then,~~

**c)** subsequently irradiating the preform.

125. (Previously presented) The process of claim 124, wherein the heating step is performed at temperatures of about 145°C.

126. (Previously presented) The process of claim 124, wherein the preform is irradiated with gamma radiation at a dose greater than 1 Mrad.

127. **(Currently amended)** A process for preparing an orthopaedic implant prosthesis bearing having improved mechanical properties and increased wear resistance comprising the steps of:

**a)** providing an ultrahigh molecular weight polyethylene (UHMWPE) preform from which the bearings are to be fabricated;

**b)** irradiating the preform; and

**c)** heating the preform to a temperature from above the melting point of the UHMWPE to about 300°C.

128. (Previously presented) The process of claim 127, wherein the heating step is performed at temperatures of about 145°C.

129. (Previously presented) The process of claim 127, wherein the preform is irradiated with gamma radiation at a dose of at least 1 Mrad.